

### AMENDMENTS TO THE CLAIMS

Applicant respectfully requests that claim 2 be canceled, without prejudice, and that the amendments indicated below be made such that the claims of the application will appear as follows:

1. (Currently amended). A method for treating a complex fluid, comprising:
  - a) introducing a supply of complex fluid into a treatment zone, said complex fluid including first and second fluid components that are responsive to light energy;
  - b) applying light energy to said complex fluid in said treatment zone, said light energy being supplied from an ~~excimer-based~~ excimer, non-pulsed, non-laser light source utilizing dielectric barrier discharge that generates a substantially monochromatic light having a designated wavelength of between 260 nm and 310 nm;wherein said light energy from said ~~excimer-based~~ excimer non-laser light source is effective to substantially preserve said first fluid component and to substantially excite said second fluid component;  
wherein said complex fluid is selected from the group consisting of blood products, pharmaceuticals, injectable solutions and vaccines; and  
wherein the light source is maintained at ambient temperature.
2. (Canceled).

3. (Original). A method according to claim 1, further comprising adding a photoactive compound to said complex fluid prior to applying said monochromatic light thereto.
4. (Currently amended). A method according to claim 1, wherein said ~~excimer~~excimer-based non-laser light source includes a system for controlling temperature of said complex fluid throughout application of said monochromatic light thereto.
5. (Currently amended). A method according to claim 1, wherein said ~~excimer~~excimer-based non-laser light source generates said monochromatic light utilizing an excimer gas selected from the group consisting of XeI, Cl<sub>2</sub>, XeBr, Br<sub>2</sub>, XeCl, filtered XeBr, I<sub>2</sub> and XeF.
6. (Currently amended). A method according to claim 1, wherein said complex fluid treatment ~~involves~~further comprises leukocyte reduction and said first fluid component is a carrier fluid.
7. (Previously presented). A method according to claim 1, wherein said complex fluid treatment involves inactivation of organisms by disrupting one or more nucleic acids of the organisms.
8. (Original). A method according to claim 1, wherein said complex fluid is a blood product selected from the group consisting of whole blood, plasma, platelets, packed red cells and combinations thereof.
9. (Currently amended). A method according to claim 3, wherein said complex fluid treatment ~~involves~~further comprises excitation of the photoactive compound, wherein

the excited photoactive compound is effective at inactivating one or more organisms; and  
said first fluid component is not affected by said excited photoactive compound.

10. (Canceled).
11. (Original). A method according to claim 1, further comprising mixing said complex fluid during treatment thereof.
12. (Currently amended). A method for treating nucleic acid within a complex fluid, comprising:
  - a) introducing a supply of complex fluid into a treatment zone;
  - b) adding a photoactive compound to said complex fluid; and
  - c) applying light energy to said complex fluid and said photoactive compound in said treatment zone, said light energy being supplied from an ~~excimer~~ ~~excimer-based-non-pulsed, non-laser~~ light source utilizing dielectric barrier discharge that generates a substantially monochromatic light having a designated wavelength less than 340 nm;

wherein said light energy from said light source is effective to substantially excite a nucleic acid and to substantially excite said photoactive compound;

wherein said complex fluid is selected from the group consisting of blood products, pharmaceuticals, injectable solutions and vaccines; and

wherein the light source is maintained at ambient temperature.

13. (Currently amended). A method according to claim 12, wherein said complex fluid is a ~~blood-based~~ blood product and further includes biological proteins which are inactivated by ultraviolet light.
14. (Canceled).
15. (Canceled).
16. (Canceled).
17. (Original). A method according to claim 12, wherein said photoactive compound is riboflavin.
18. (Original). A method according to claim 12, wherein said nucleic acid excited by said light energy from said light source is single stranded and belongs to a pathogen.
19. (Original). A method according to claim 12, wherein said photoactive compound is effective at inactivating pathogens with double stranded nucleic acid.